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Felix Henry

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EXAMINER

HUNG, YUBIN

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/668,389	Applicant(s) HENRY ET AL.	
	Examiner YUBIN HUNG	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9-16 and 18-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9-16 and 18-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 October 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment/Arguments

1. This action is in response to the amendment filed on 4/24/09, which has been entered.

2. In view of Applicant's amendment the rejections under 35 U.S.C 101 and 112 (both first and second paragraphs) have been withdrawn.

3. Applicant's arguments with respect to claim (see pp. 10-11, especially the last paragraph on p. 10 and the first paragraph on p. 11, of the 04/24/09 response) have been considered but are not persuasive. Specifically, Applicant argues

A. *that the amplitude model of claim 1 is chosen so as to best represent the amplitude of the samples (i. e., the data) along the path where a model is possibly selected because the path is not predetermined (last paragraph on p. 10)*

However, the passage cited above is not a claim limitation. Additionally, the portion cited for support (page 9, lines 9-16 and 24-27 of the instant application) does not support the assertion that "*the amplitude model of claim 1 is chosen so as to best represent the amplitude of the samples (i. e., the data) along the path nor that "where a*

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model is possibly selected because the path is not predetermined.” Therefore the argument is not persuasive.

B. that the “zig-zag” scan of Easwar is neither determined by an amplitude model nor coded (first paragraph on p. 11)

However, a path determined by an amplitude model is not a claim limitation and, additionally, Easwar discloses coding the path (i.e., quantized coefficients on the scan path, see paragraph 13 of the 11/14/08-mailed Office action). Therefore the argument is not persuasive.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

5. A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

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6. Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claim 10 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 14 of U.S. Patent No. 6,822,578 issued to Henry in view of Easwar (US 2004/0008897) and Cloutier et al. (US 5,847,771).

Regarding claim 10, note that claim 14 of Henry discloses

- determining an amplitude model and a path amongst the digital data wherein the amplitude of the data along said path corresponds to said amplitude model, and coding said path

The combined invention of Easwar and Cloutier discloses all other limitations of the instant claim 10, as per the analysis of claim 10 below. The reasons for modifying Henry with the teachings of Easwar and Cloutier would have been to enable images to be stored or transmitted more efficiently, as Easwar indicates in paragraph 15.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Part A

Note: The analyses for part A below apply to the versions of claims 3-9 as dependent from claim 1; claims 12-19 as dependent from claim 10; and claims 20-28 with respect to claims 1 or 10 as appropriate.

9. Claims 1, 6, 9-10, 15, 18, 20, 21, 23-26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Easwar (US 2004/0008897), and further in view of Cloutier et al. (US 5,847,771).
10. Regarding claim 10, and similarly claim 1 (since the device of claim 10 performs the method of claim 1 and additionally Easwar discloses a processor in Fig. 3, ref. 320 that receives information from resources such as the RAM 330 or the wireless connection 360), Easwar discloses an apparatus for transcoding digital data comprising
- means of transcoding the digital data coded according to the first coding mode into the digital data coded according to the second coding mode [Fig. 3, refs. 320 & 325 (transcoder); Fig. 4B; P. 7, paragraph 63, lines 11-19; P. 8, paragraphs 73-75. Note that JPEG (1st coding mode) is transcoded into Wavelet (2nd mode)]
 - wherein the second coding mode includes determining an amplitude model and a path amongst the digital data wherein the amplitude of the data along said path corresponds to said amplitude model, and coding said path [P. 9, paragraph 82, especially lines 18-25. Note that the coefficients (the values of which are their amplitudes) are further quantized and entropy-encoded ("coding said path") in the second mode (wavelet-based). Note further that the entropy scheme recited in lines 23-25 typically uses a zigzag path to scan the data, as is also disclosed in P. 7, paragraph 70, especially lines 3-13, of Easwar. The zigzag sequence of the quantized coefficients constitutes an amplitude model representing the amplitude of the data along a path (as defined by the zigzag traversal). Note further that a specific path ("Zig-Zag") is selected (i.e., determined) and an amplitude model (the set of quantized coefficients) is also determined (since the resultant quantized coefficients are determined by the specific quantization method selected by Easwar)]

Easwar does not expressly disclose the detection of inactivity of resources useful for transcoding and carrying out transcoding when inactivity is detected. However, Cloutier discloses detecting the inactivity of resources useful for an operation (e.g., decompression) and when detected, carrying out the operation [Fig. 3, ref. 75; Fig. 5, refs. 75 (detecting inactivity), 104 (resource); Fig. 9, ref. 170 (period of inactivity); Col. 18, line 24-Col. 19, line 37, especially, Col. 19, lines 23-31].

Easwar and Cloutier are combinable because they both have aspects that are from the same field of endeavor of encoding.

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify Easwar with the teachings of Cloutier by detecting the inactivity of the useful resources before carrying out the desired operation. The motivation would have been for the intended operation (e.g., transcoding) to be successfully carried out while maintaining the system integrity (since a current task, if any, being executed in the resource will be terminated prematurely and leave the system in an uncertain state if a new task commences before the current task is complete).

Therefore it would have been obvious to combine Cloutier with Easwar to obtain the invention as specified in claim 10.

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11. Regarding claim 15, and similarly claim 6, note that the first coding mode disclosed by Easwar is JPEG [Fig. 4B: ref. 410]

12. Regarding claim 18, and similarly claim 9, note that in Easwar the data coded according to a first format (JPEG) is a digital image [P. 7, paragraph 63, lines 11-13].

13. Regarding claims 20, 21 (digital data processing apparatuses) and claims 23, 24 (photographic apparatuses), note that per the analysis of claims 1 and 10 above, the apparatus shown in Fig. 3, ref. 310 of Easwar has been modified (by Cloutier) to comprise a processor [Fig. 3, ref. 320] and a transcoder [Fig. 3, ref. 325] that performs the steps recited in claims 20 and 23 (see especially the analysis of claim 10). Note further that the apparatus is a photographic apparatus; it is also a digital processing apparatus since it processes digital images.

14. Regarding claim 25, and similarly claim 28 (a storage medium is an information carrier), Easwar further discloses a storage medium [Fig. 2B, ref. 282; P. 5, paragraph 53, lines 8-11] capable of storing a program for implementing the method of claim 1. [Note that Fig. 2B is part of the general digital camera (which Fig. 3, ref. 310 is an instance of; see P. 7, paragraph 63, lines 1-4) disclosed in Fig. 1, ref. 100.]

15. Regarding claim 26, Easwar further discloses a detachably mountable medium [Fig. 2B, ref. 284; P. 6, paragraph 53].

16. Claims 3, 4, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Easwar (US 2004/0008897) and Cloutier et al. (US 5,847,771) as applied to claims 1, 6, 9-10, 15, 18, 20, 21, 23-26 and 28 above and further in view of Kaneko et al. (US 6,671,454).

17. Regarding claim 12 and similarly claim 3, the combined invention of Easwar and Cloutier discloses all limitations of its parent, claim 10.

The combined invention of Easwar and Cloutier does not expressly disclose the following, but Kaneko does

- Means of selecting an order of transcoding of the digital data coded according to the first coding mode into the digital data coded according to the second coding mode
[Fig. 17, refs. 154, 157; Col. 15, lines 20-28 & 55-61. Note that the order is based on the size]

The combined invention of Easwar and Cloutier is combinable with Kaneko because they both have aspects that are from the same field of endeavor of encoding.

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the combined invention of Easwar and Cloutier with the teaching of Kaneko as recited above. The motivation would have been to ensure a large free space, as Kaneko indicates in column 15, lines 60-61.

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Therefore it would have been obvious to combine Kaneko with Easwar and Cloutier to obtain the invention as specified in claim 12.

18. Claim 13 (and similarly claim 4) is similarly analyzed and rejected as per claim 12 since the order disclosed by Kaneko is based on size [Col. 15, lines 60-61].

19. Claims 5 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Easwar (US 2004/0008897), Cloutier et al. (US 5,847,771) and Kaneko et al. (US 6,671,454) as applied to claims 3, 4, 12 and 13 above, and further in view of Ishii et al. (US 5,675,789).

20. Regarding claim 14, and similarly claim 5, the combined invention of Easwar, Cloutier and Kaneko discloses all limitations of its parent, claim 12.

In addition, Ishii discloses selecting files to compress according to access frequency [Fig. 4, ref. 102; Col. 8, lines 32-42. Note that transcoding can involve decompression first (e.g., see Easwar: Fig. 4B, ref. 411)].

The combined invention of Easwar, Cloutier and Kaneko is combinable with Ishii because they both have aspects that are from the same field of endeavor of encoding.

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At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the combined invention of Easwar, Cloutier and Kaneko with the teaching of Ishii by selecting files according to access frequency. The motivation would have been to transcode the most desired (as indicated by the access frequency) file first since the communication between the requesting server and the transcoding device can and does get lost, and when that happens, the most desired file would most likely have already been transcoded and transmitted. [See the wireless communication link 300 between device 310 and server 370 of Easwar's Fig. 3].

Therefore it would have been obvious to combine Ishii with Easwar, Cloutier and Kaneko to obtain the inventions as specified in claim 14.

21. Claims 7 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Easwar (US 2004/0008897) and Cloutier et al. (US 5,847,771) as applied to claims 1, 6, 9-10, 15, 18, 20, 21, 23-26 and 28 above, and further in view of Joshi et al. (US 6,987,890).

22. Regarding claim 16, and similarly claim 7, the combined invention of Easwar and Cloutier discloses all limitations of its parent, claim 10.

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The combined invention of Easwar and Cloutier does not expressly disclose using the JPEG 2000 standard for the first coding mode. However, Joshi discloses the use of JPEG 2000 [Col. 1, lines 14-34].

The combined invention of Easwar and Cloutier is combinable with Joshi because they both have aspects that are from the same field of endeavor of encoding.

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the combined invention of Easwar and Cloutier with the teaching of Joshi by using the JPEG 2000 standard for the first coding mode. The motivation would have been because it provides a very flexible framework for organizing and ordering the compressed bit stream, as Joshi indicates in column 1, lines 34-39.

Therefore it would have been obvious to combine Joshi with Easwar and Cloutier to obtain the inventions as specified in claim 16.

23. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Easwar (US 2004/0008897) and Cloutier et al. (US 5,847,771) as applied to claims 1, 6, 9-10, 15, 18, 20, 21, 23-26 and 28 above, and further in view of Horie et al. (US 6,236,759).

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Regarding claim 19, the combined invention of Easwar and Cloutier discloses all limitations of its parent, claim 10.

In addition, Horie discloses an image processing apparatus (with encoding and decoding units) comprising a processor, a ROM for storing programs and a RAM with registers [Fig. 1D, ref. 1141 (ALU, a processor), 1142 (ROM) and 1140 (RAM); Col. 9, lines 17-23].

The combined invention of Easwar and Cloutier is combinable with Horie because they both have aspects that are from the same field of endeavor of encoding.

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the combined invention of Easwar and Cloutier with the teaching of Horie by using the JPEG 2000 standard for the first coding mode. The motivation would have been to facilitating the operation of the apparatus, as Horie indicates in Col. 9, lines 17-18.

Therefore it would have been obvious to combine Horie with Easwar and Cloutier to obtain the inventions as specified in claim 19.

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24. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Easwar (US 2004/0008897) and Cloutier et al. (US 5,847,771) as applied to claims 1, 6, 9-10, 15, 18, 20, 21, 23-26 and 28 above, and further in view of Holliman et al. (US 2002/0116533).

25. Regarding claim 22, the combined invention of Easwar and Cloutier discloses all limitations of its parent, claim 20.

In addition, Holliman discloses having an apparatus with transcoding capability being part of a peer-to-peer network [Fig. 1 and P. 1, paragraph 10 (peer-to-peer); P. 3, paragraph 29 (transcoding)].

The combined invention of Easwar and Cloutier is combinable with Holliman because they both have aspects that are from the same field of endeavor of encoding.

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the combined invention of Easwar and Cloutier with the teaching of Holliman by having the apparatus as part of a peer-to-peer network. The motivation would have been because peer-to-peer network disclosed in Holliman offers advantages such as improved data/resource sharing and transparency of physical location of a resource, as Holliman indicates in P. 1, paragraphs 10 and 11.

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Therefore it would have been obvious to combine Holliman with Easwar and Cloutier to obtain the inventions as specified in claim 22.

26. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Easwar (US 2004/0008897) and Cloutier et al. (US 5,847,771) as applied to claims 1, 6, 9-10, 15, 18, 20, 21, 23-26 and 28 above, and further in view of Berstis (US 6,721,001).

27. Regarding claim 27, the combined invention of Easwar and Cloutier discloses all limitations of its parent, claim 25.

In addition, Berstis discloses having a floppy disk as a storage medium for a digital camera [Fig. 2, ref. 214 and Col. 3, lines 3-8].

The combined invention of Easwar and Cloutier is combinable with Berstis because they both have aspects that are from the same field of endeavor of image acquisition.

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the combined invention of Easwar and Cloutier with the teaching of Berstis by having a floppy disk as a storage medium. The motivation would have been for portability, as Berstis indicates in Col. 4, lines 58-60.

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Therefore it would have been obvious to combine Berstis with Easwar and Cloutier to obtain the inventions as specified in claim 27.

End of Part A

Part B

28. Note: The analyses for Part B below apply to claims 2, 11 and the versions of claims 3-7 and 9 as dependent from claim 2; claims 12-16, 18 and 19 as dependent from claim 11; and claims 20-27 with respect to claims 2 or 11 as appropriate.

29. Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Easwar (US 2004/0008897), Cloutier et al. (US 5,847,771) as applied to claims 1, 6, 9-10, 15, 18, 20, 21, 23-26 and 28 above, and further in view of Lai et al. (US 6,407,680).

30. Regarding claim 11, and similarly claim 2 (since the device of claim 11 performs the method of claim 2), the combined invention of Easwar and Cloutier discloses all limitations of its parent, claim 10.

The combined invention of Easwar and Cloutier does not expressly disclose the following

- means of detecting a request demanding digital data coded according to the first coding mode
- means of verifying that the digital data demanded are coded according to the second coding mode
- means of transcoding the digital data coded according to the second coding mode into data coded according to the first coding mode, if the response at the verification step is positive

However, Lai discloses an apparatus [Fig. 1, ref. 106 and Fig. 2; Col. 7, lines 32-53] that has a means for detecting a request for data in a first coding mode which also serves as

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a means for verifying that the demanded data are coded according to a second coding mode [Fig. 2, ref. 206 (the means); Fig. 5A, ref. 504 (detecting) and Fig. 5B, ref. 520 (verifying); Col. 9, lines 53-61; Col. 14, lines 57-Col. 15, line 8; Col. 14, line 55-Col. 15, line 8; Col. 17, lines 31-42. Note that the source and the destination types are considered the second and the first modes, respectively]. The apparatus also has a means for transcoding from the source type (i.e., the second mode) into the destination type (i.e., the first mode) [Fig. 2, ref. 218 & Fig. 5B, ref. 522; Col. 17, lines 31-42].

The combined invention of Easwar and Cloutier is combinable with Lai because they both have aspects that are from the same field of endeavor of encoding.

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify the combined invention of Easwar and Cloutier with the teaching of Lai by detecting the coding mode of the requested data and if it is different from the existing mode the data is coded, then performs the appropriate transcoding. The motivation would have been to avoid unnecessary transcoding (and thereby improve efficiency) because if the requested data already exists in the desired mode (i.e., type), then it can be delivered without transcoding, as Lai indicates in Col. 17, lines 31-36.

Therefore it would have been obvious to combine Lai with Easwar and Cloutier to obtain the invention as specified in claim 11.

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31. Regarding claims 3-7, 9, 12-16 and 18-27, the corresponding analyses in Part A can and are applied (and are not repeated here) to modify the combined invention of Easwar, Cloutier and Lai to obtain the inventions as specified by the respective claims.

End of Part B

Conclusion and Contact Information

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to YUBIN HUNG whose telephone number is (571) 272-7451. The examiner can normally be reached on 7:30 - 4:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vikkram Bali can be reached on (571) 272-7415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

33. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yubin Hung/
Primary Examiner, Art Unit 2624

June 24, 2009